No. 669,263. Patented Mar. 5, 1901.

T. W. McNALLY.

BRAKE WHEEL FOR CARS.

(Application filed Dec. 8, 1900.)

(No Model.)

Fig. 1.

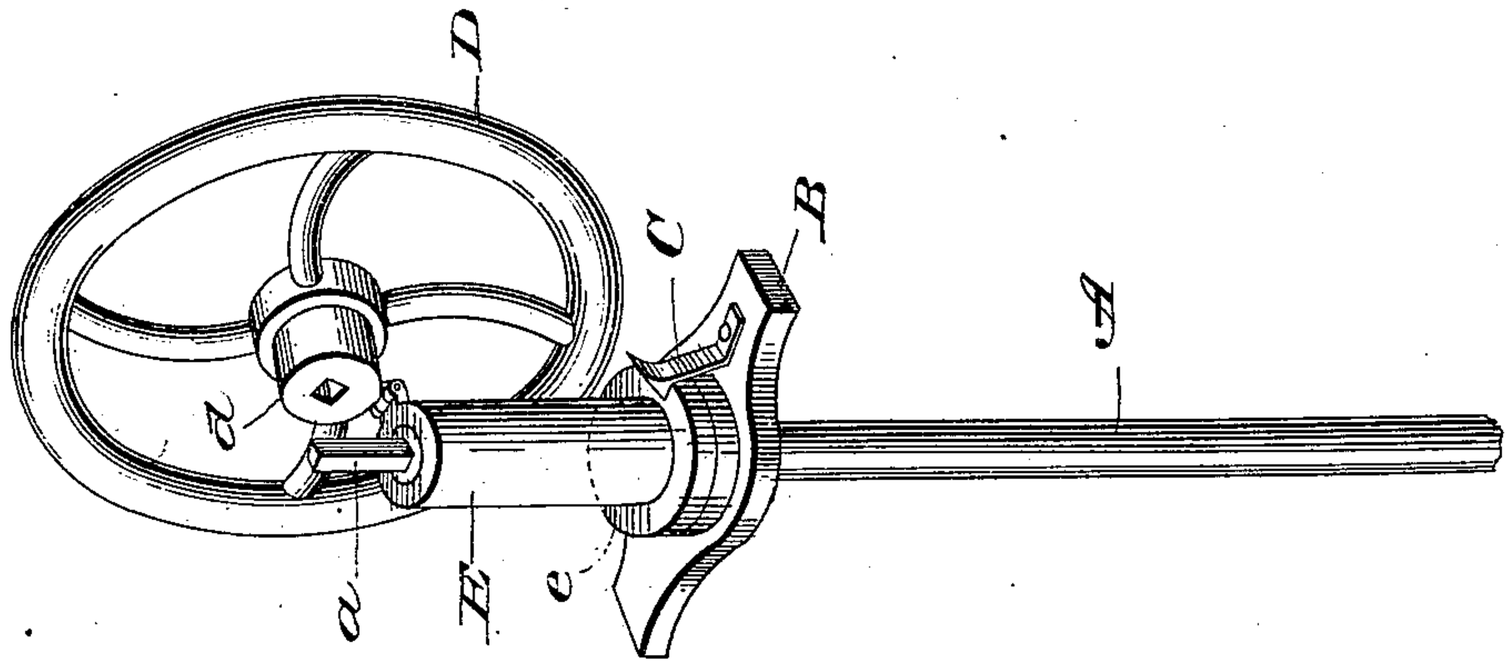


Fig. 2.

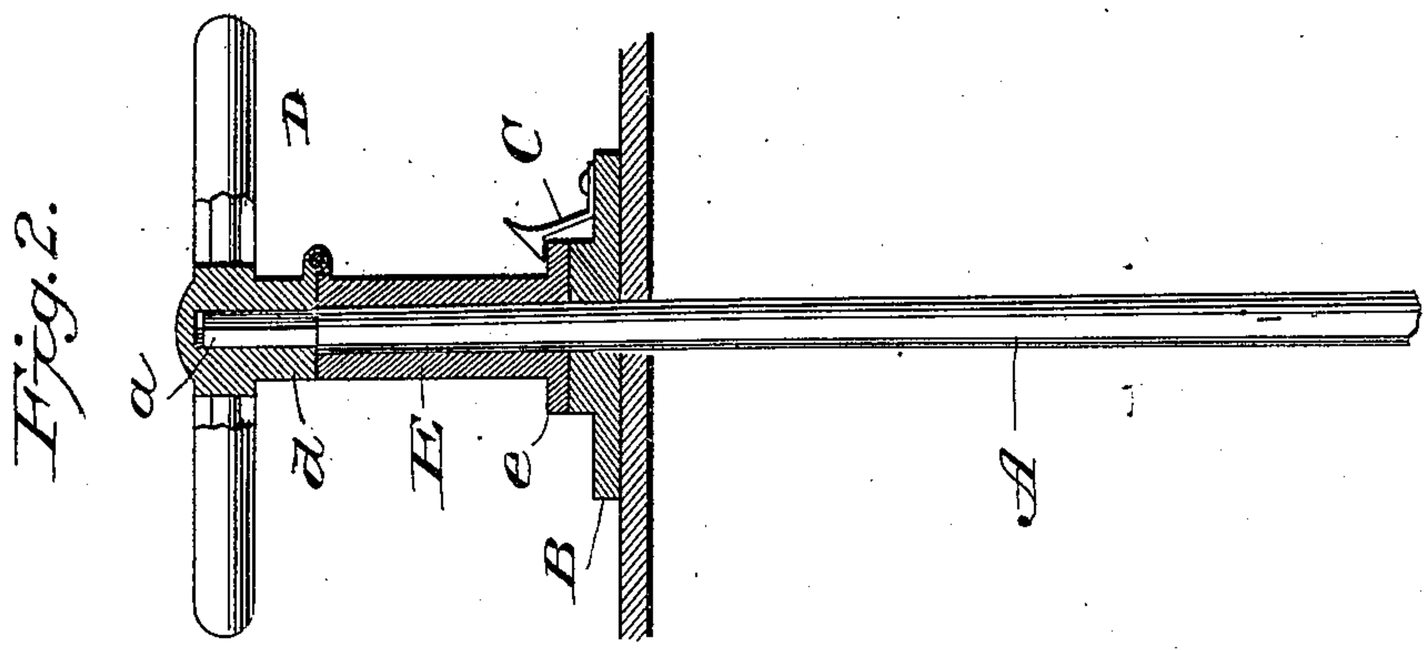
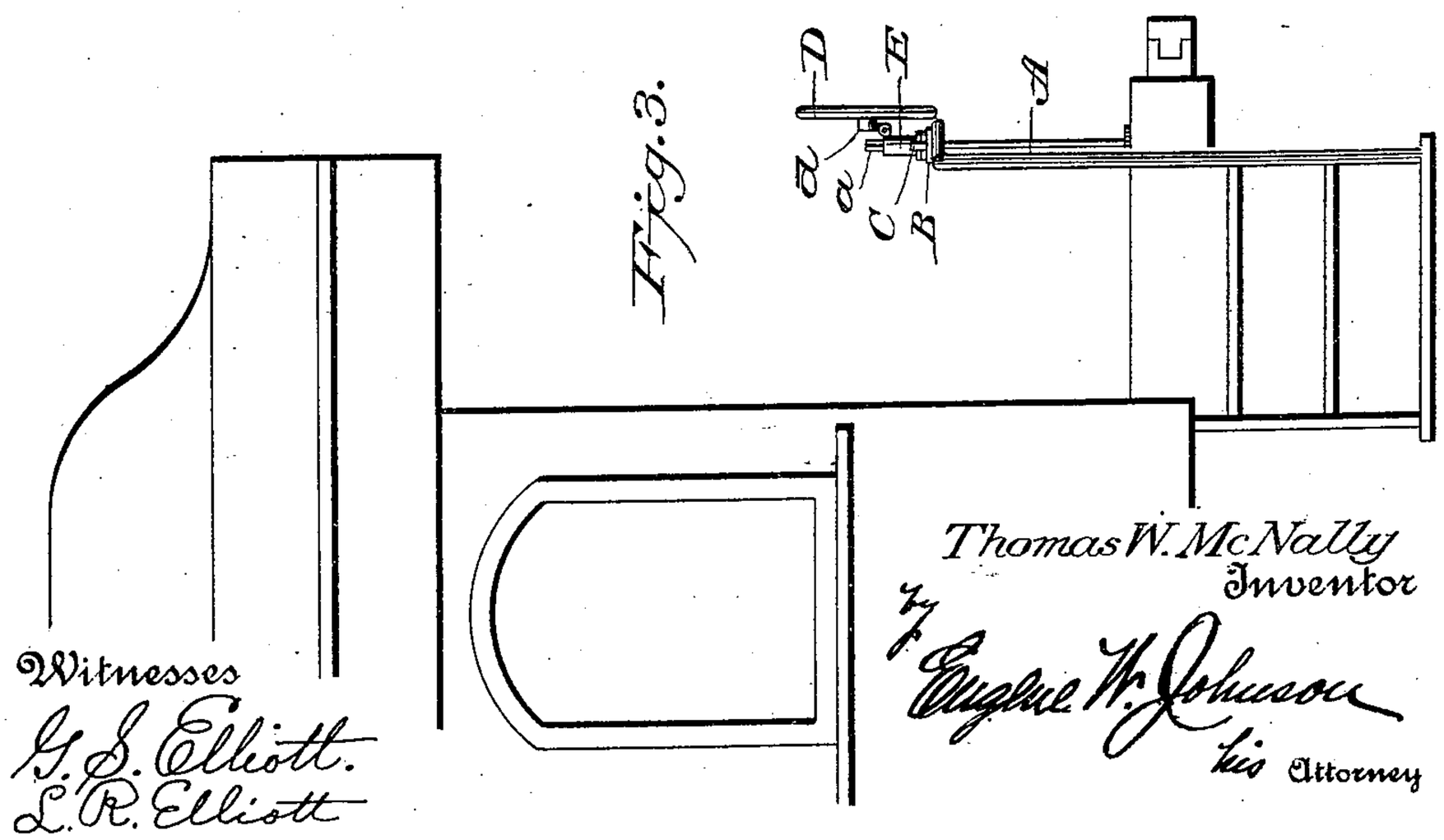


Fig. 3.



Witnesses
G. S. Elliott.
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Thomas W. McNally
Inventor
by Eugene W. Johnson
his Attorney

UNITED STATES PATENT OFFICE.

THOMAS W. McNALLY, OF BRISTOL, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO EDWARD MORRELL, OF TORRESDALE, PENNSYLVANIA.

BRAKE-WHEEL FOR CARS.

SPECIFICATION forming part of Letters Patent No. 669,263, dated March 5, 1901.

Application filed December 8, 1900. Serial No. 39,155. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. MCNALLY, a citizen of the United States, residing at Bristol, in the county of Bucks and State of Pennsylvania, have invented new and useful Improvements in Brake-Wheels for Cars, of which the following is a specification.

This invention appertains to improvements in brake-wheels for cars, the object being to provide a brake-wheel of such construction that when placed horizontally on the brake shaft or staff the hand-wheel will be in positive or locked engagement therewith, the construction of the connecting means permitting the hand-wheel to be placed in a vertical position, and when so positioned the brake-shaft may turn without imparting motion to the wheel.

The invention consists in the combination, with a brake-shaft, of a sleeve mounted thereon and a brake-wheel connected to the sleeve in such a manner that when placed at right angles with the brake-shaft it will be maintained horizontally and in locked engagement with the shaft, also in the construction of the parts, which embody in combination a brake-shaft having a key end, a sleeve mounted on the brake-shaft, a hand-wheel having a hub with the socket, which hub is hinged to the sleeve, and means for holding the sleeve against longitudinal movement on the brake-shaft, but which admits of a rotary movement of the shaft and sleeve independent one of the other when the brake-wheel is out of engagement with the key-ended or squared end of the brake-shaft, as will be hereinafter set forth.

In the accompanying drawings, Figure 1 is a perspective view showing the brake-wheel out of engagement with the brake-shaft. Fig. 2 is a sectional view showing the brake-wheel in position for use, and Fig. 3 is a side elevation showing my improvement applied to a car.

The brake-shaft A is attached to the car in the usual manner, being positioned adjacent to the hand-rail of the platform, and to the hand-rail is secured a plate or fixture B, through which the shaft passes to provide a bearing therefor, and the upper portion of this plate has a boss or bearing for the end of a sleeve which is placed upon the upper end of the brake shaft or staff A.

To the plate or fixture B is secured a catch C, of any suitable construction, which is adapted to hold the sleeve against longitudinal movement on the shaft, but will permit the shaft to turn independent of the sleeve. The brake-wheel D has a hub *d* with a socket shaped to fit and snugly engage the squared or key-ended end *a* of the brake-shaft, and said hub is hinged or pivoted to the upper end of a hollow sleeve E, which corresponds in length with the cylindrical portion of the brake-shaft above the raised central portion of the fixture B. The sleeve has a flange *e* at its lower end, over which the retaining end of the spring-catch may lie, so as to admit of a rotary movement of the sleeve upon the shaft or the shaft in the sleeve one independent of the other.

The construction shown may be modified as to the configuration of the base of the sleeve and the form of the catch. For instance, instead of providing the base of the sleeve with a flange the same may have a circumferential recess and the fixture or plate B may carry a spring-actuated bolt, which engages the recess and performs the same function as the catch shown. The catch when in engagement with the sleeve holds the same against vertical movement on the shaft and permits one of the parts to rotate without turning the other part, and the catch can be readily placed out of engagement with the sleeve when it is desired to move it longitudinally on the shaft for the purpose of removing the brake-wheel or to place the brake-wheel in positive engagement with the brake-shaft. It is desirable that the spring-catch and part which engages therewith should be constructed so that the catch will operate automatically when engaged by the sleeve and will necessitate manual operation to disconnect the catch in order to raise the sleeve.

When the hub of the brake-wheel and the sleeve are in alinement, they may be placed upon the brake-shaft so that the socket and the hub of the wheel engage the squared end of the shaft, and when lowered the sleeve which is connected to the hub will be engaged

by the spring-catch, which prevents disengagement of the wheel from the shaft, so that the brake-shaft can be turned without liability of the parts being disengaged. To disconnect the hand-wheel from the brake-shaft, the catch is manually thrown out of engagement with the sleeve and is then raised sufficiently to admit of the hub of the wheel passing beyond the key-ended end of the shaft, so that the hand-wheel may be turned to assume a vertical position, and when in such position the brake-shaft may turn independent of the hand-wheel.

I claim—

1. In combination with a brake-shaft having an end which is angular in cross-section, of a sleeve movably mounted on the shaft and a brake-wheel connected to the sleeve the hub of the wheel having a socket for engagement with the angular end of the brake-shaft.

2. In a railway-brake the combination with a brake-shaft of a sleeve for engagement with the shaft, a brake-wheel hinged to the sleeve and means which engages with the sleeve to prevent longitudinal movement of the sleeve on the shaft and which will admit of the shaft turning without imparting movement to the sleeve and wheel attached thereto.

3. In a railway-brake the combination with a key-ended brake-shaft, a sleeve rotatably mounted on the shaft, means for holding the sleeve against longitudinal movement, a brake-wheel hinged to the sleeve said wheel having a socketed hub for engagement with the end of the brake-shaft the hinged connection being to one side of the sleeve substantially as shown.

4. In a railway-brake, the combination with a brake-shaft a plate or fixture through which the shaft passes a sleeve for engagement with the shaft above the plate or fixture a spring-catch carried by the plate which engages with a sleeve to hold the same against longitudinal movement and at the same time permits one of the parts to turn upon the other, a hand-wheel hinged to the sleeve which wheel is adapted to be placed in positive engagement with the brake-shaft or maintained out of rotary engagement therewith substantially as shown and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

THOMAS W. McNALLY.

Witnesses:
C. Y. McCULLOUGH,
JNO. L. BURNS.